

Substitute for Form 1449A/PTO (Modified) (Use as many sheets as necessary)				Attorney Docket No.: 074451.P134	Application Number: 09/894,524
APR 28 2003 U.S. PATENT & TRADEMARK OFFICE				First Named Inventor: Martin Boliek	June 27, 2001
				Filing Date:	

U.S. PATENT DOCUMENTS						
Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Code ²	Kind (If known)			
hl	A	6,121,970		Guedalia	09-19-2000	
ll	B	5,966,465		Keith et al.	10-12-1999	
hl	C	6,237,010	B1	Hui et al.	05-22-2001	

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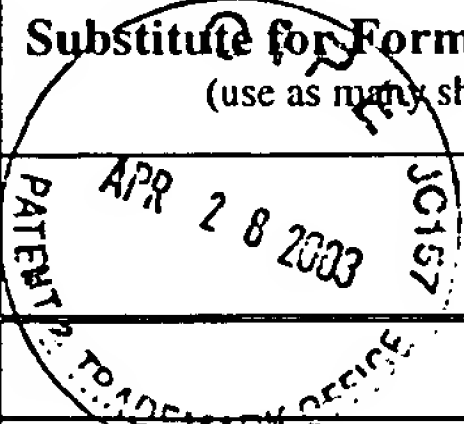
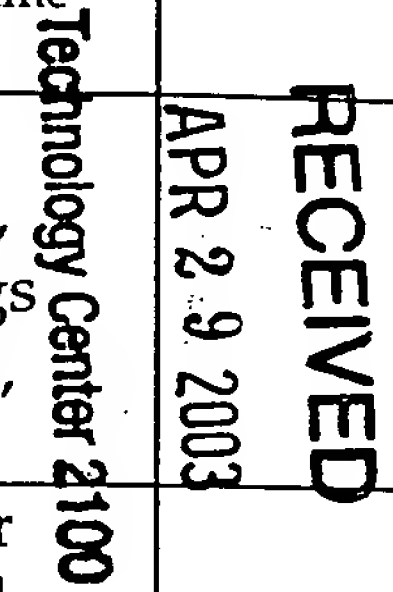
FOREIGN PATENT DOCUMENTS								
Exam. Initial*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (If known)				
hl	D	EP	0 967 556	A2	Hewlett-Packard Co.	10-02-1999		
hl	E	WO	00/49571		Digital Accelerator	08-24-2000		


Examiner Signature 	Date Considered 12/06/04
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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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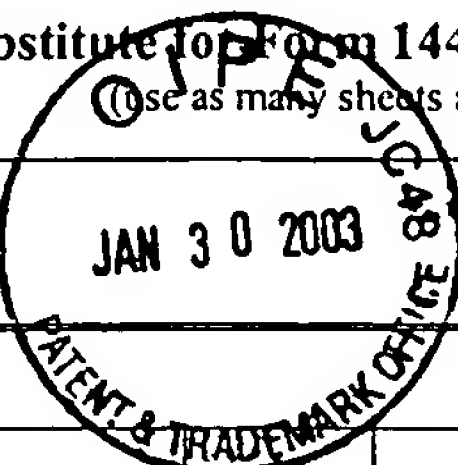
Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 074451.P134	Application Number: 09/894,524
		First Named Inventor: Martin Boliek	
		Filing Date: June 27, 2001	
OTHER ART – NO PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume- issue number(s), publisher, city and/or country where published	Translation ²
lf	F	Wu, G.K., et al., "New Compression Paradigms in JPEG2000", Applications of Digital Image Processing XXIII, San Diego, CA USA, July 31-Aug 3, 2000, vol. 4115, pp. 418-429, XP008013391, Proceedings of the DPE – The International Society for Optical Engineering, 2000, SPIE-Int. Soc. Opt. Eng., USA.	
hf	G	Boliek, M., et al., "JPEG 2000 for Efficient Imaging In a Client/Server Environment", Proceeding of the PIE, SPIE, Bellingham, VA, US, vol. 4472, July 31, 2000, pp. 212-223, XP008010308.	
hf	H	Marcellin, M.W., et al., "An Overview of JPEG-2000", Proceedings. DCC 2000 Snowbird, UT, USA, March 28-30, 2000, pp. 523-541, XP010377392.	

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uf	B	Sachin Deshpande and Wenjun Zeng, "HTTP Streaming of JPEG 2000 Images", <u>IEEE</u> (2001), pp. 15-19	
u1	C	"JPEG 2000 PART I FINAL COMMITTEE DRAFT VERSION 1.0", ISO/IEC FCD15444-1:2000 (V1.0, 16 March 2000), pp. 13-52.	
hl	D	Martin Boliek, Michael J. Gormish, Edward L. Schwartz, and Alexander Keith, "Decoding compression with reversible embedded wavelets (CREW) codestreams", <u>Journal of Electronic Image</u> , July 1998, Vol. 7(3), pp. 402-409.	
hl	E	Robert Blumberg and Peter Huges, "Visual Realism and Interativity for the Internet", <u>IEEE</u> (1997), pp. 269-273.	
hu	F	Christopher R. Hauf and J. Scott Houchin, "The FlashPix™ Image File Format", <u>The Fourth Color Imaging Conference: Color Science, Systems and Application</u> (1996), pp. 234-238.	

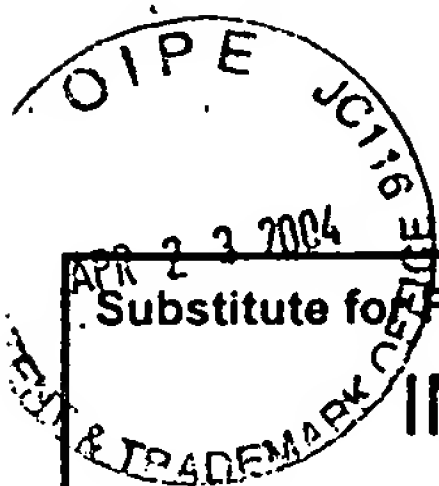
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known

Application Number	09/894,524
Filing Date	6/27/2001
First Named Inventor:	Martin Boliek
Art Unit	2152
Examiner Name	Not Yet Assigned
Attorney Docket Number	074451.P134

Sheet

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of

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U.S. PATENT DOCUMENTS

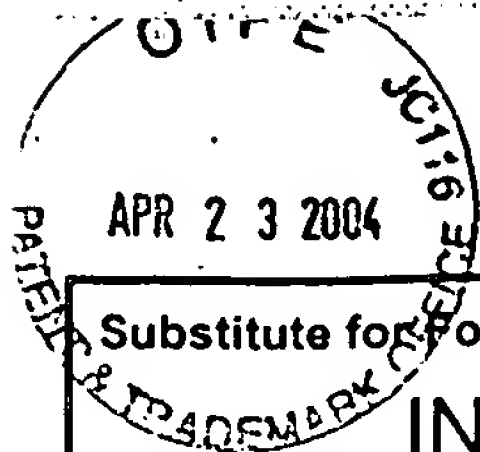
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If known)				
hl		US-	3,580,655	5/25/1971	Leith et al.	
hl		US-	3,950,103	4/13/1976	Schmidt-Weinmar	
hl		US-	4,136,954	1/30/1979	Jamieson	
hl		US-	4,155,097	5/15/1979	Lux	
hl		US-	4,190,861	2/26/1980	Lux	
hl		US-	4,223,354	9/16/1980	Noble et al.	
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hl		US-	4,569,075	2/4/1986	Nussbaumer	
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hl		US-	4,815,023	3/21/1989	Arbeiter	
hl		US-	4,817,182	3/28/1989	Adelson et al.	
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hl		US-	4,827,336	5/2/1989	Acampora et al.	
hl		US-	4,829,378	5/9/1989	Le Gall	
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hl		US-	4,858,017	8/15/1989	Torbey	
hl		US-	4,864,398	9/5/1989	Avis et al.	
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hl		US-	4,974,187	11/27/1990	Lawton	
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Complete if Known

Application Number	09/894,524
Filing Date	6/27/2001
First Named Inventor:	Martin Boliek
Art Unit	2152
Examiner Name	Not Yet Assigned
Attorney Docket Number	074451.P134

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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		Number-Kind Code ² (if known)				
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25		US-	5,414,780	5/9/1995	Carnahan	
		US-	5,416,604	5/16/1995	Park	
		US-	5,420,891	5/30/1995	Akansu	
		US-	5,453,945	9/26/1995	Tucker et al.	
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		US-	5,481,308	1/2/1996	Hartung et al.	
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		US-	5,497,435	3/5/1996	Berger	
		US-	5,511,151	4/23/1996	Russell et al.	RECEIVED APR 26 2004
		US-	5,534,925	7/9/1996	Zhong	
		US-	5,537,493	7/16/1996	Wilkinson	
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		US-	5,442,458	8/15/1995	Rabbani et al.	
		US-	5,546,477	8/13/1996	Knowles et al.	
		US-	5,563,960	10/8/1996	Shapiro	
	26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47		US-	5,566,089	10/15/1996	Hoogenboom
		US-	5,602,589	2/11/1997	Vishwanath et al.	
		US-	5,631,977	5/20/1997	Koshi	
		US-	5,638,498	6/10/1997	Tyler et al.	
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		US-	5,701,367	12/23/1997	Koshi et al.	
		US-	5,717,789	2/10/1998	Anderson, et al.	
		US-	5,754,793	5/19/1998	Eom et al.	
		US-	5,808,683	9/15/1998	Tong et al.	
		US-	5,809,176	9/15/1998	Yajima	
		US-	5,850,482	12/15/1998	Meany et al.	
		US-	5,867,602	2/2/1999	Zandi et al.	
		US-	5,880,856	3/9/1999	Ferriere	
		US-	5,966,465	10/12/1999	Keith et al.	
		US-	6,020,975	2/1/2000	Chen et al.	
		US-	6,026,198	2/15/2000	Okada	
		US-	6,088,062	7/11/2000	Kanou et al.	
		US-	6,101,279	8/8/2000	Nguyen et al.	
		US-	6,118,902	9/12/2000	Knowles	
		US-	6,121,970	9/19/2000	Guedalia	
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	US-	6,160,846	12/12/2000	Chiang		
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	US-	6,229,929 B1	5/8/2001	Lynch et al.		
	US-	6,236,765 B1	5/22/2001	Archarya		
	US-	6,237,010 B1	5/22/2001	Hui et al.		
	US-	6,263,109 B1	7/17/2001	Ordentlich et al.		
	US-	6,263,120 B1	7/17/2001	Matsuoka		

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FOREIGN PATENT DOCUMENTS

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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
AL		EPO 0510933 A1	10/28/1992	Canon Kabushiki Kaisha		
AL		EPO 0593013 A2	4/20/1994	Kabushiki Kaisha Toshiba		
AL		EPO 0611051 A1	8/17/1994	Canon Kabushiki Kaisha		
AL		EPO 0622741 A2	11/2/1994	Klics, Ltd.		
AL		EPO 0967556 A2	12/29/1999	Hewlett-Packard Co.		
AL		EPO 1035511 A2	9/13/2000	Canon Kabushiki Kaisha		
AL		EPO 1164781 A1	12/19/2001	Matsushita Electric Ind. Co., Ltd		
AL		EPO 701375 A2	3/13/1996	Xerox Corporation		
AL		JP 06-245077	9/2/1994	Nec Corp.		
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AL		JP 7-79350	3/20/1995	Fuji Photo Film Co. Ltd.		
AL		PCT WO 00/49571	8/24/2000	Digital Accelerator Corp.		
AL		PCT WO 01/16764 A1	3/8/2001	Rtimage Inc.		
AL		PCT WO 88/10049	12/15/1988	Eastman Kodak Co.		
AL		PCT WO 91/03902	3/21/1991	Aware, Inc.		
AL		PCT WO 91/18361	11/28/1991	Yale University		
AL		PCT WO 93/10634	5/27/1993	General Electric Co.		
AL		PCT WO 94/17492	8/4/1994	David Sarnoff Research Ctr., Inc.		
AL		PCT WO 94/23385	10/13/1994	Lewis, Adrian		
AL		PCT WO 95/19683	7/20/1995	Houston Advanced Research Ctr.		
AL		PCT WO 96/09718	3/28/1996	Houston Advanced Research Ctr.		
AL		UK GB 2 211 691 A	7/5/1989	Hitachi Ltd.		
AL		UK GB 2 284 121 A	5/24/1995	State of Israel- Ministry of Defence		
AL		UK GB 2 285 374 A	7/5/1995	Ricoh Company Ltd.		
AL		UK GB 2 293 733 A	4/3/1996	Ricoh Company Ltd.		
AL		UK GB 2 293 734 A	4/3/1996	Ricoh Company Ltd.		
AL		UK GB 2 303 030 A	2/5/1997	Ricoh Company Ltd.		
AL		UK GB 2 303 031 A	2/5/1997	Ricoh Company Ltd.		
AL		UK GB 2 341 035 A	3/1/2000	Ricoh Company Ltd.		

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Application Number	09/894,524
Filing Date	6/27/2001
First Named Inventor:	Martin Boliek
Art Unit	2152 Technology Center 2101
Examiner Name	Not Yet Assigned
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Sheet 6 of 8

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
hl		ANTONINI, et al., "Image Coding Using Wavelet Transform", <u>IEEE Transactions on Image Processing</u> , Vol 1, No. 2, April 1992, pp. 205-220.	
OP		BLUMBERG, et al., "Visual Realism and Interactivity for the Internet", IEEE, 1997, pp. 269-273.	
hl		BOLIEK, et al., "Decoding compression with reversible embedded wavelets (CREW) codestreams", <u>Journal of Electronic Imaging</u> , July 1998, vol. 7 (3), pp. 402-409.	
hl		BOLIEK, et al., "JPEG 2000 for Efficient Imaging in a Client/Server Environment", <u>Proceeding of the PIE, SPIE, Bellingham, VA, US</u> , Vol. 4472, July 31, 2001, pp. 212-223, XP008010308.	
hl		BOLIEK, et al., "JPEG 2000 Next Generation Image Compression System", IEEE 0-7803-6297, 45-48	
hl		CALDERBANK, et al., "Wavelet Transforms That Map Integers to Integers", August 1996.	
hl		CAREY, et al: "Regularity-Preserving Image Interpolation", <u>IEEE Transactions on Image Processing</u> , Vol. 8., No. 9, September 1999, pgs. 1293-1297, XP002246254.	
hl		CARRATO, et al: "A Simple Edge-Sensitive Image Interpolation Filter", <u>Proceedings of the International Conference on Image Processing (ICIP) Lausanne</u> , Sept. 16-19, 1996, New York, IEEE, US, vol. 1, pgs. 711-714, XP010202493.	
hl		CHEN, et al., "Wavelet Pyramid Image Coding with Predictable and Controllable Subjective Picture Quality", <u>IEICE Trans. Fundamentals</u> , Vol. E76-A., No. 9, September 1993, pp. 1458-1468.	
hl		CHEONG, et al., "Subband Image Coding with Biorthogonal Wavelets", <u>IEICE Trans. Fundamentals</u> , Vol. E75-A., No. 7, July 1992, pp. 871-881.	
hl		CHRYSAFIS, et al., "An Algorithm for Low Memory Wavelet Image Compression", IEEE 0-7803-5467-2/99, pp. 354-358.	
hl		CHRYSAFIS, et al., "Line Based Reduced Memory, Wavelet Image Compression," <u>Data Compression Conference, 1998, DCC '98, Proceedings Snowbird, UT, March 1998</u> , pgs. 398-407.	
hl		CHUI, et al., "Wavelets on a Bounded Interval", <u>Numerical Methods of Approximation Theory</u> , Vol. 9, 1992, pg. 53-75.	
hl		CROCHIERE, et al., "Digital Coding of Speech in Sub-bands", 1976, American Telephone and Telegraph Company, <u>The Bell System Technical Journal</u> , Vol. 55, No. 8, October 1976, p. 1069-1085.	
hl		DENK, et al., "Architectures for Lattice Structure Based Orthonormal Discrete Wavelet Transforms", <u>IEEE</u> , 1994, pp. 259-270.	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known

Application Number	09/894,524
Filing Date	6/27/2001
First Named Inventor:	Martin Boliek
Art Unit	2152
Examiner Name	Not Yet Assigned
Attorney Docket Number	074451.P134

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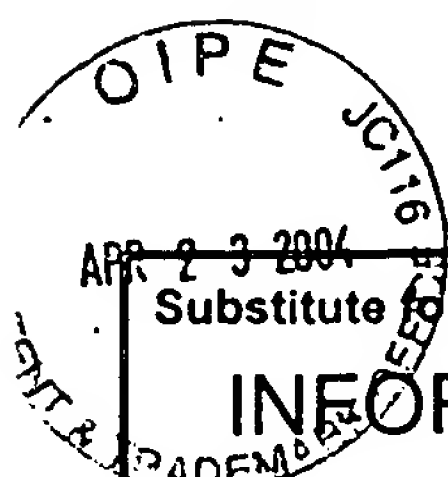
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
W		GHARAVI, et al., "Sub-band Coding of Digital Images Using Two-Dimensional Quadrature Mirror Filtering", SPIE Vol. 707 Visual Communications and Image Processing, 1986, p. 51-61.	
W		GORDON, BENJAMIN M., et al., "A 1.2 mW Video-Rate 2-D Color Subband Decoder," IEEE Journal of Solid-State Circuits, IEEE Inc. New York, Vol. 30, No. 12, Dec. 1, 1995, pgs. 1510-1516.	
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Attorney Docket Number	074451.P134

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hl		SHAH, et al., "A Chip Set for Lossless Image Compression", <u>IEEE Journal of Solid-State Circuits</u> , Vol. 26, No. 3, March 1991, pp. 237-244.	
hl		SHAPIRO, J. M., "An Embedded Hierarchical Image Coder Using Zerotrees of Wavelet Coefficients", <u>IEEE</u> , 1993, pp. 214-223.	
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hl		SZU, et al., "Image Wavelet Transforms Implemented by Discrete Wavelet Chips", <u>Optical Engineering</u> , July 1994, Vol. 33, No. 7, pp.2310-2325.	
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